

### **REMARKS**

Applicant thanks the Examiner for the very thorough consideration given the present application. In view of the above amendment, applicant believes the pending application is in condition for allowance.

Claims 1-15 are now present in this application. Claims 1 and 10 are independent.

Claims 13-15 have been added, and claims 1, 5, 8 and 10 have been amended. Reconsideration of this application, as amended, is respectfully requested.

### **Information Disclosure Citation**

Applicants thank the Examiner for considering the references supplied with the Information Disclosure Statement filed June 9, 2005, and for providing Applicants with an initialed copy of the PTO-1449 or PTO-SB08 form filed therewith.

### **Claim Objections**

The Examiner has objected to claim 1 because of the informalities: "an-type" and "then-type" should be an n-type and the n-type. In order to overcome this objection, Applicant has amended claim 1 in order to correct the deficiencies pointed out by the Examiner. Reconsideration and withdrawal of this objection are respectfully requested.

### **Rejections Under 35 U.S.C. §§ 102 & 103**

Claims 1, 5-10 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Tanaka (JP 11-354840) in view of Tanaka (phys. Stat. Sol) and Tanaka (JJAP). Claims 2-4 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Tanaka (JP 11-354840) in view of Tanaka (JP 11-354839). These rejections are respectfully traversed.

It is respectfully noted that the 35 U.S.C. § 102(b) rejection on claims 1, 5-10 and 12 is in fact a 35 U.S.C. § 103(a) rejection since the Office Action combined three references to issue the rejection. A complete discussion of the Examiner's rejection is set forth in the Office Action, and is not being repeated here.

Amended independent claim 1 includes a combination of features and is directed to a quantum-dot LED including an n-type semiconductor layer, at least one insulator layer formed on the n-type semiconductor layer and provided with a plurality of holes, quantum dots formed by filling the holes, and a p-type semiconductor layer formed on the insulator layer in which the quantum dots are formed. Amended independent claim 10 includes similar features in a varying scope.

The cited references fail to teach or suggest that the quantum dots are formed by filling the holes of the insulator layer. Tanaka (JP 11-354840) merely teaches a cap layer C covering the quantum dots and Tanaka (phys. Stat. Sol. and JJAP) teaches Si-N bonding as a nano-scale mask for morphological transition of GaN. Although Tanaka (phys. Stat. Sol. and JJAP) disclose forming quantum dots and forming nanoholes and SiN is an insulating material, Tanaka (phys. Stat. Sol. and JJAP) fails to teach or suggest that the quantum dots are formed in the holes. Rather, the quantum dots in Tanaka (phys. Stat. Sol. and JJAP) are grown by depositing GaN on a surface treated with anti-surfactant, and there is no layer or material in the hole.

Accordingly, amended independent claims 1 and 10 and each of claims depending therefrom are allowable.

#### **Claims Added**

Claims 13-15 have been added to set forth the invention in a varying scope, and Applicants respectfully submit the new claims are fully supported by the originally filed application.

It is respectfully submitted the new claims further define over the applied art.

#### **Additional Cited References**

Since the remaining reference cited by the Examiner has not been utilized to reject the claims, but have merely been cited to show the state of the art, no comment need be made with respect thereto.

**Conclusion**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Jun S. Ha, Registration No. 58,508, at (703) 205-8000, in the Washington, D.C. area.

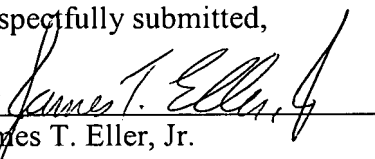
Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: November 1, 2007

Respectfully submitted,

By

  
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